DOCUMENT RESUME

ED 241 097 JC 840 121

AUTHOR Turgeon, Mary L.
TITLE Professional Continuing Education: Participatory Characteristics of Allied Health Practitioners.
PUB DATE Nov 83
NOTE 49p.; Ed.D. Practicum, Nova University.
PUB TYPE Dissertations/Theses - Practicum Papers (043) -- Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Allied Health Occupations; Community Colleges; *Continuing Education; Medical Laboratory Assistants; *Medical Technologists; Occupational Surveys; Questionnaires; *Student Educational Objectives; Two Year Colleges
IDENTIFIERS *Corning Community College NY

ABSTRACT

In late 1983, a study was conducted to examine the continuing education participation and related characteristics of medical technology practitioners in the service area of Corning Community College (CCC). Survey forms were distributed by hospital laboratory managers to all levels of medical technology practitioners in seven local hospitals catergorized by size and location. Study findings, based on responses from 71% of those surveyed, included the following: (1) respondents in all hospitals, with the exception of a university-town medical center, were concentrated in the 31-40 year age category; (2) the larger hospitals had a preponderance of respondents with Bachelor's and Master's degrees, while the rural hospitals had a predominance of Associate degree graduates; (3) journal reading was cited as the most frequent source of new professional knowledge; (4) all of the respondent groups felt that there were too few opportunities for continuing education, though the actual participation rate averaged 76% for the entire sample; (5) all respondent groups chose "wanting to be better at my present job" as their strongest reason for personnally participating in continuing education, followed by possible job advancement and salary increase; and (6) respondents over 40 demonstrated the highest participation rate of any age group. The study report includes a discussion of the implications of the findings for CCC program development, a literature review, and the survey instrument. (HB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED241097

PROFESSIONAL CONTINUING EDUCATION: PARTICIPATORY CHARACTERISTICS OF ALLIED HEALTH PRACTITIONERS

LEARNING THEORY AND APPLICATIONS SEMINAR

by

Mary L. Turgeon, M.S.

Corning Community College

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

M. L. Turgeon

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

A PRACTICUM PRESENTED TO NOVA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF EDUCATION

NOVA UNIVERSITY

NOVEMBER, 1983

JC 840121

TABLE OF CONTENTS

TABLE OF CONTENTS.....ii

ABSTRACT.....v

LIST OF TABLES.....viii

1. INTRODUCTION.....1

2. BACKGROUND AND SIGNIFICANCE.....5

Professional Continuing Education.....5
The Status of
Professional Continuing Education.....6
Participant Characteristics.....7
Appropriateness of Practicum.....8

3. PROCEDURES.....10

4. RESULTS.....12

General Description.....12
Demographic Characteristics.....13
Sources and Interests.....15
Opinions.....17
Age As A Variable.....18
Education As A Variable.....20

5. DISCUSSION, IMPLICATIONS
and RECOMMENDATIONS.....23

Local Implications of the Study.....23
Professional Obsolescence.....25
Motivation:
Relationship to the Literature.....26
Curricular Recommendations.....31
Professional Continuing
Education Recommendations.....31
Professional Growth and
Development Recommendations.....32
Conclusions.....33

TABLE OF CONTENTS (cont.)

REFERENCES.....35

BIBLIOGRAPHY.....38

APPENDICES.....40

A. INTRODUCTORY LETTER.....42

B. SURVEY LETTER.....44

C. SURVEY.....46

D. FIRST CHOICE RESPONSES VS. AGE.....48

E. OPINIONS
Participants vs. Non Participants.....50

ABSTRACT

PROFESSIONAL CONTINUING EDUCATION: PARTICIPATORY CHARACTERISTICS OF ALLIED HEALTH PRACTITIONERS

Mary L. Turgeon, M.S.

The purpose of this practicum was to examine continuing education participation and related characteristics of Medical Technology practitioners. Literature within the discipline was limited, while the general literature relating to professional continuing education had not been applied to Medical Technology.

All levels of employees in the clinical laboratories of the service area hospitals of Corning Community College, Corning, New York and two, non-service area hospital laboratories were surveyed. Profiles and comparisons were expressed using simple, descriptive statistics.

Respondents from the service area were typically in the 31-40 year old age group and held either an Associate or Bachelor's degree. Slightly more than half of the respondents held categorical registration with a national certifying agency. Organized activities on a local basis constituted the primary source of continuing education. More than half of the resondents wanted more opportunities for continuing education. The actual rate of participation in a continuing education activity during the last three

years was greater for this group than studies cited in the literature.

The majority of survey respondents selected "wanting to be better at their present job" as their primary reason for personally participating. They felt that professionals should participate in continuing education to keep abreast of new techniques and methods in the discipline. Participants shared similar opinions on reasons for personal participation but non-participants were divided on personal reasons. Participants and non-participants shared the same predominant opinion on why professionals should participate.

One of the major implications of the practicum is that the area does not need a reinstatement of the non-traditional Medical Laboratory Technology degree program at Corning Community College. The needs of the area relate to keeping pace with the state of the art, attainment of individual national certification and participation in programs that provide personal satisfaction and professional advancement.

An analysis of the results suggests a number of important recommendations. These recommendations include articulation with an upper level institution, development of programs to facilitate individual upward mobility through certification, development of a faculty based professional practitioners network and possibilities for the presentation of specialized, technical workshops.

LIST OF TABLES

	TOPIC	PAGE
TABLE 1	AGE DISTRIBUTION	12
TABLE 2	EDUCATION	12
TABLE 3	CERTIFICATION	13
TABLE 4	SOURCES OF CONT. EDUC	14
TABLE 5	RANKING OF ACTIVITIES	15
TABLE 6	PERSONAL PARTICIPATION	16
TABLE 7	PROFESSIONAL PARTICIPATION	17
TABLE 8	PARTICIPATION VS. AGE	18
TABLE 9	EDUCATION VS. FIRST CHOICES	19
TABLE 10	FIRST CHOICES VS. EDUCATION	20
TABLE 11	EDUCATION VS. PARTICIPATION	20

INTRODUCTION

The purpose of this practicum was to examine continuing education participation and related characteristics, among Allied Health practitioners, specifically within the discipline of Medical Technology.

Corning Community College is a two year, comprehensive college in upstate New York which offers a daytime, campus-based Associate in Applied Science degree in Medical Laboratory Technology. With the exception of a Non-Traditional Medical Laboratory Technology project that assisted working laboratory practitioners in obtaining an associate degree, the college has not been actively involved in directly providing credit or non-credit professional continuing education for Corning graduates and other personnel practicing Medical Technology within the college's service area. Contemporary data regarding the demographic characteristics, opinions and actual participatory opportunities and behaviors were needed in order to provide college planners with information about the general interests and needs of Corning graduates and other Medical Technology practitioners within the service area.

An examination of the general literature within adult higher education (Cross: 1981) reveals innumerable studies on the topics of who participates, what adults want in coursework, recruitment and external barriers to adult participation in continuing adult higher education. However, as Tinto (1982) points out, research done on one sector of adults participating in higher education cannot automatically be applied to another group of adult learners. Tinto's conclusions highlight the fact that care needs to be exercised in applying a model developed under one set of circumstances to another group of learners.

Houle (1980) recently investigated continuing education as it broadly related to a variety of professions, excluding the Allied Health professions. He has subsequently developed a five group typology of professionals as a result of this analysis of a national poll of adult learners and "would be" learners. This five group typology classifies professionals as innovators, pacesetters, the middle majority , laggards and facilitators. He additionally considered the effect of the working environment and categorized the goals of lifelong education based upon individual goals, i.e. self-enhancement, and collectively as a profession. Broski and Upp (1979) sampled five Allied Health professions, including Medical Technology, in an Ohio study to determine what was wanted in continuing education. Actual participation in continuing education was not determined by

their study. Other studies relating to the Allied Health professions have been of a learning preference nature, i.e. topics of interest and modes of instruction,rather than focusing on characteristics, opinions and actual participatory behaviors..

This practicum considers the appropriateness of Houle's typology to Medical Technology in this non-replicative study and the relevancy of Boshier's (1977) theoretical conclusions relating to congruence between learner and the learning environment as influencing the motivation for adult learning. Boshier's work is germane to the proposed study largely because his interests are in non-credit continuing education.

All levels of practitioners within the discipline of Medical Technology currently employed in laboratories of the hospitals in the college's service area were surveyed on a voluntary basis. Two hospital laboratories within the region but not in the college's official service area additionally participated in the study. Initially, the laboratory managers were contacted and asked to have their staffs participate in the study. Following the committment to conduct the project in their laboratory, each manager was mailed a suitable number of surveys along with a general cover letter to share with their staff. The

managers were additionally responsible for collecting and returning the surveys. The survey materials were distributed and returned via the managers during the month of October, 1983.

BACKGROUND AND SIGNIFICANCE

Professional Continuing Education

Continuing education is described by Hoffman (1980) as a component of the adult education system which is concerned primarily with the spread of general, social, vocational, and professional knowledge for all members of the general adult citizenry. He further defines continuing education within the health-care delivery context as a system of education that is considerably broader than adult education; it is a subsystem of the health system, because its clients either support or deliver health care services.

Occupational half-life has become a legitimate concern of many health professions which has led to mandatory continuing education requirments (Ruhe:1982) in many of the medical and allied health professions. Mandated continuing education does not exist in Medical Technology. The intensive research and expansion of knowledge with its technological applications have had a significant impact upon the profession of Medical Technology. It is estimated (Broski and Upp: 1979)that the active body of knowledge doubles every ten years. Snyder (1982) contends that the knowledge and competencies carried

into the field at the career entry point are soon obsolete, having a half-life of approximately five years. Hoffman (1979) emphasizes the significance of continuing education to the allied health professions by pointing out that failure to participate creates a danger to the health care delivery system.

Houle (1967) notes that while continuing education will not cure all the problems of the professions, without it no cure is possible. Ruhe (1982) expresses his opinion that continuing education is here to stay, that it will become more formalized and more regulated, and that it will soon become accepted as an essential component of the life and career of every professional. He emphatically contends that continuing education is or should be a basic tenet of every profession that its members strive constantly to improve their knowledge and performance. In keeping with the definition of a profession, practitioners of Medical Technology must continue to perform their work with the highest standards and to assume responsibility for continued competence through continued education.

The Status of Professional Continuing Education

The status of continuing education in the allied health professions is not regularly available. Connelly (1979) reports that the American Society of Allied Health Professions reported an increase in programs from 49 to 357

and in attendance from 2,687 to 21,710 between 1970 and 1974. Ruhe(1982) reports that the American Medical Association's Committee on Allied Health Education and Accreditation has established a number of task forces to study various issues in continuing education for the allied health fields. Among the concerns of these groups are availability and accessibility of continuing education opportunities, needs assessment, delivery systems, and financial support for continuing education. Problems of availability, accessibility and costs are more stringent for allied health fields than for the medical community of physicians, because of limited resources both at the institutional and personal level.

Participant Characteristics in Continuing Education

If programs are available and various external obstacles have been surmounted, do laboratory practitioners participate in non-mandated continuing education? In the opinion of Dickinson and Clark (1975), some individuals and groups were found to be more active participants than others. Certain biographical and socio-economic characteristics such as age, previous education, and occupation are now known to be associated with participation within the general field of adult education.

Houle(1961) suggests that adults vary as to their predominant conception of or orientation towards learning.

Goal-oriented learners use education as a means of accomplishing fairly clear-cut objectives, while learning oriented adults seek knowledge for it own sake. Adult learning takes place in various ways (Dickinson and Clark: 1975). Incidental learning occurs within one's life or work setting. Purposeful learning may occur as self-education that is self-planned and self managed, while continuing education in its current form involves learning that is conducted in the presence of someone external of the learner who plans and manages the learning process.

Every professional develops a distinctive pattern of self -directed education influenced both by personal characteristics and by the special circumstances of the environment, including the stimuli provided by people and institutions who seek to advance continued learning (Houle: 1980).

Appropriateness of the Practicum

This practicum was appropriate for the Learning Theory and Applications seminar as an application of basic theory to practice. It is increasingly recognized that in order to move soundly from basic research to practice we need to take into account the social contexts in which learning occurs. According to Skinner, behavior is to be accounted for in terms of the present stimulus complex and

the past training history of the person with respect to similar situations. The past history provides the person with a large fund of information, skills and values (Bower and Hilgard: 1981).

This practicum very specifically addressed the social context of the work environment, past training history and related variables related to participatory characteristics of Medical Technology practitioners within and adjacent to service area of Corning Community College.

PROCEDURE

This practicum surveyed all levels of practitioners within the discipline of Medical Technology who were currently employed in the laboratories of the hospitals in Corning Community College's official service area. This area is composed of Chemung, Schulyer and Steuben counties of upstate New York State which is a mix of small cities and rural villages with a total three county population of 181,261 (1970 census) distributed over 2,151 square miles. Two laboratories from adjacent areas with similar demographics were additionally included in the project because the are employers of Corning graduates.

Initially, a letter was sent to the seven service area hospital laboratory managers and to two non-service area hospital laboratory managers. This letter explained the nature and purpose of the practicum and requested the participation of their staff in this project (Appendix A).

After the laboratory managers had agreed to participate in the project, an explanatory letter (Appendix B) and color-coded survey (Appendix C) was distributed to the two laboratories that were not in the college's service area. The total number of employees in these laboratories is approximately sixty. This pre-testing of the survey was designed to reveal any ambiguities in the survey and establish reliability.

Following the pre-testing of the survey, the instrument was distributed to the Laboratory Managers of the seven hospital laboratories within the college's service area. The managers were requested to distribute the survey to all levels of laboratory practitioners in their hospital. The total number of persons to be surveyed was expected to exceed two hundred. The surveys were returned via the managers

The results of the surveys were compiled using simple descriptive statistical profiles for both the pre-test groups and the actual test group. The results of the surveys were analyzed with reference to Houle's typology, Skinner's factors that influence learning and Boshier's motivational analysis .

RESULTS

General Description of Respondent Characteristics

A total of 146 surveys were returned by the deadline date of November 1, 1983. The results from one rural hospital with 4 respondents arrived after the deadline and were not included in the data. The overall response rate, excluding the late arrivals, was 71%.

Respondent laboratories were subdivided into four groups according to hospital size and geographic location. These groups were: Group A= two, 300 bed+, acute, primary care hospitals located in the largest city of the service area (population 95,000); Group B= four, 150 bed or less, acute, primary care hospitals located in small towns (population range 10,000 to 35,000) within the college's service area; Group C= one, 250 bed, acute care hospital located outside of the service area in a medium sized university town and; Group D= one, 300 bed+ medical center complex with a Baccalaureate level School of Medical Technology, located in a semi-rural area (population 15,000) outside of the service area. All of the hospitals have approximately equal geographic access to the major area cities of Syracuse, Rochester and Buffalo, New York and to the Elmira-Corning Regional Airport.

Demographic Characteristics

The first characteristic to appear on the survey was age (Table 1). The predominant age group for all of the hospitals, except the medical center, was in the 31-40 year old age group. The major age group of the medical center respondents was 26-30 years.

Table 1 Age Distribution

Hospital:	A N=51	B N=33	C N=34	D N=28
under 21 years		3%	6%	
21-25 years	16%	15%	18%	14%
26-30 years	18%	18%	27%	39%
31-40 years	43%	36%	30%	21%
over 40 years	23%	27%	18%	25%

Educational attainment (Table 2) was classified for each of the hospital laboratory groups. The larger hospitals had a predominance of persons with Bachelor's and Master's degrees, while the rural hospitals (Group B) had a predominance of Associate degree graduates and the only Ph.D. responding to the survey.

Table 2 Educational Attainment

Hospital:	A N=48	B N=32	C N=33	D N=28
HIGH SCHOOL	10%	9%	9%	11%
ASSOCIATE DEGREE	38%	50%	33%	18%
BACHELOR'S DEGREE	44%	34%	52%	64%
MASTER'S DEGREE	8%	3%	6%	7%
DOCTORATE		3%		

Certification (Table 3) by the American Society of Clinical Pathologists (ASCP) was most pronounced (78%) at the Baccalaureate, MT(ASCP) level at the medical center that has a Scool of Medical Technology. Both the Associate degree, MLT(ASCP) and Bachelor's degree, MT(ASCP) certification were common certifications at the other hospital groups. The Group A hospitals had more individuals with specialty certifications in clinical areas.

Table 3 Certification

	A N=27	B N=21	C N=18	D N=23
C.L.A.(ASCP)	7%			
MLT(ASCP/NCA/STATE)	37%	37%	22%	13%
MT(ASCP/NCA)	37%	47%	56%	78%
MT(HEW)		14%		
SPEC.(ASCP)	12%			4%
HT(ASCP)	4%		6%	4%
CT(ASCP)	4%		10%	

The number of respondents holding certification with a national certifying agency was highest (82%) of the medical center respondents. Other respondent hospital rates ranged from 53% to 63%.

Continuing Education Sources and Interests

Sources of continuing education, including both self-directed journal reading and organized continuing education activities were examined for the respondents. Tables 4 and 5 demonstrate that all of the respondents felt that journal reading was their most frequent source of new knowledge in the profession. The Group A hospitals and Group B hospitals relied upon local activities predominantly. The Group C hospital depended upon In-House programs as their most frequent source of organized continuing education, while the Group D medical center respondents depended upon state and national meetings as their most frequent contact with organized continuing education. Co-worker were the third ranked source of continuing education for all hospital laboratories, except the Group B rural laboratories.

Table 4 Sources of Continuing Education

	A	B	C	D
JOURNALS	41%	44%	40%	33%
LOCAL	19%	34%	13%	12%
IN-HOUSE	14%	6%	25%	2%
MANUFACTURERS	10%	3%	5%	6%
STATE MEETINGS	1%	6%	2%	17%
NATIONAL MEETINGS		2%		17%
CO-WORKERS	14%	5%	16%	13%

Table 5 Ranking of Continuing Education Activities

Hospital:	A	B	C	D
JOURNALS	1	1	1	1
LOCAL	2	2	4	4
IN-HOUSE	3	3	2	6
MANUFACTURERS	4	5	5	5
STATE MEETINGS	5	3	6	2
NATIONAL MEETINGS		6		2
CO-WORKERS	3	4	3	3

All of the groups felt that opportunities for continuing education were too few, except the medical center group which was almost equally divided between too few and just right, as is shown in these results:

Hospital:	A N=49	B N=20	C N=33	D N=28
FEW	82%	63%	70%	58%
RIGHT	18%	38%	27%	54%
MANY			3%	4%

The actual rate of participation averaged 76% for the entire sample and 74% for the Group A and B hospitals in Corning's service area. The range of participation of the sample was from 63% to 89%, as these results demonstrate:

Hospital:	A N=41	B N=24	C N=32	D N=26
PARTICIPANTS	63%	89%	81%	77%

Opinions Toward Professional Continuing Education

In response to the reasons for personally participating in continuing education (Table 6). All groups of participants chose "wanting to be better at my present job" as their strongest reason for personally participating in continuing education. The other two reasons appearing as either first, second or third choices for personal participation where possible job advancement and/or salary increase; or a sense of personal satisfaction in mastering something new. Two items appeared within the ranking as weak choices for, at least, two of the four groups. These items were that a certificate of achievement or relicensing was desired or that they enjoyed meeting new people.

Table 6 Reasons for Personal Participation

	A	B	C	D
FIRST CHOICE	B=57% C=26% A=15%	B=62% A=29% C=10%	B=52% C=27% A=21%	B=57% A=25% C=18%
SECOND CHOICE	C=50% B=25% A=25%	C=53% B=27% A=20%	C=56% A=22% B=22%	C=68% B=21% F=11%
THIRD CHOICE	A=58% C=26% E=16%	A=32% C=68%	A=44% C=32% F=24%	A=41% F=41% E=18%

*percentages rounded off

Respondents were less polarized in their reasons for why professionals should participate in continuing education (Table 7). The opinion that ranked first was formal training in new techniques and methods. Rural hospitals and the non-service area, non-teaching hospital chose the mastery of theoretical knowledge as their second highest priority for why professionals should participate incontinuing education. Rural hospitals and the teaching, non-service area hospital cited that continuing education is ethically necessary to remain competent as their third and second choices, respectively.

Table 7 Opinions For Professional Participation

FIRST CHOICE	E=48% B=26% D=26%	E=53% A=23% G=23%	E=58% A=25% D=17%	E=59% G=24% I=16%
SECOND CHOICE	B=51% E=34% G=15%	G=39% F=19% A=21% B=21%	B=51% A=24% D=24%	B=53% A=18% E=18% I=11%
THIRD CHOICE	E=32% I=15% A=15%	I=45% E=37% B=18%	I=44% C=17% E=19%	I=45% *=11% B,C,D E,G

* percentages rounded off

AGE AS A VARIABLE IN PROFESSIONAL CONTINUING EDUCATION

Age was examined as a variable in terms of rate of participation (Table 8). The rate of participation was relatively consistent throughout the age groups with the

exception of those over 40, who demonstrated the greatest rate of participation and exceeded the next highest group by 18%.

TABLE 8 Participation As A Function Of Age

(Persons Answering Yes To Survey Item #4)

	Years of Age			
ITEM	up to 25	26-30	31-40	over 40
A	83%	67%	100%	100%
B	56%	56%	76%	50%
C	63%	67%	90%	100%
D	25%	83%	67%	100%
Aver.:	65%	71%	60%	89%

When age was compared with first choice responses to item #5 and item #6 (Appendix D), age did not appear to dominate the opinions in most categories, except that the group over 40 ranked the "exchange of ideas among professionals" as the most important reason that professionals should participate in continuing education. This item did not appear among the choices for any other age group.

EDUCATION AS A VARIABLE IN PROFESSIONAL CONTINUING EDUCATION.

If prior educational attainment (Table 9) is compared using the first choices of each respondent, there was a fairly consistent selection of choice B, "want to be better at my present job," on item #5. Only among the high school graduates at the Group C hospital did the preference for item A exceed half (75%).

Table 9

Attitudes as a Function of Education

Item 5

HOSPITAL	HIGH SCHOOL	2YR.	4YR.	M.S., PH.D.
A.	A(50%) B(50%)	B(67%)	B(67%)	A(50%) B(50%)
B.	B(57%)	B(47%)	B(57%)	B(50%) C(50%)
C.	A(75%)	B(55%)	B(50%)	B(50%) E(50%)
D.	B(50%)	B(60%)	B(60%)	B(100%)

When an examination of education versus opinions of why professionals should participate in continuing education (Table 10), a variety of choices appear. None of the choices occured in over 50% of the responses but the

desire for formal training in new methods and techniques was the predominant selection.

Table 10

Attitudes as a Function of Education
Item 6

	HIGH SCHOOL	2YR.	B.S.	M.S., PH.D.
Hospital				
A	A,E,G 25%	E(50%)	G(30%)	B(50%) G(50%)
B	E(29%)	E(21%)	E(33%)	I(50%) F(29%)
C	E(50%)	E(45%)	D(25%) E(25%)	A(50%)
D	E(67%)	D(40%)	E(42%)	I(50%) F(50%)

All educational groups demonstrated high and roughly equivalent rates of actual participation (Table 11). The small number of persons holding Masters and Doctoral degrees did exceed the other groups in participation.

Table 11

Educational Attainment vs. Participatory Behavior

	HIGH SCHOOL	2 YR.	4 YR.	M.S., PH.D
A	100%	88%	85%	50%
B	14%	58%	81%	100%
C	75%	91%	71%	100%
D	67%	60%	79%	100%
AVERAGE	77%	77%	79%	94%

In response to the item 5 question regarding personal participation in continuing education (Appendix E), participants chose response B, wanting to be better at present job, exclusively as first choice. Possible job advancement or a sense of personal satisfaction ranked in second or third place. Those classified as non-participants, who chose a first choice reason for why they did/would participate personally in continuing education varied by hospital. Hospitals B and C employees chose a sense of personal satisfaction in mastering something new as their predominant first choice. Hospital A respondents chose wanting to better at present job and Hospital D chose possible job advancement as their reason.

A comparison of participant and non-participants in regard to why professionals should participate in continuing education revealed a consensus on the part of all respondents that formal training in new methods and techniques was their most popular choice.

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

Local Implications of the Survey

According to Hoffman(1980),perhaps the future of health science education lies not in a proliferation of new programs and personnel but through the enrichment of current programs and continuing education. This assumption appears to be true for the Corning Community College service area Medical Technology practitioners.

An examination of the survey results in terms of age, education and certification yields a variety of implications for Corning Community College. Most of the survey respondents, including Phlebotomists, reported educational attainment beyond a high school diploma. Phlebotomists in the clinical laboratories are not required by law to have advanced training and typically do not have advanced educational training. Rural hospital laboratory employees have traditionally been high school graduates who have been trained on the job to perform rountine procedures. Apparently, the combination of up-grading persons through the college's previously active non-traditional Medical Laboratory Technology Associate degree program (Turgeon: 1978) and new Corning graduates entering the labor market has met the basic needs in most

local laboratories. The number of Associate degree holders in the service area supports Hoffman's (1980) contention that enrichment through continuing education represents the future of health science education, particularly at Corning Community College. Additionally, a substantial number of respondents hold academic degrees but do not hold certification by national agencies, ie. American Society of Clinical Pathologists. This finding could have significant implications for Corning Community in terms of the kinds of continuing education activities that the college could consider. Judging from the predominant age group of 31-40 years, any scheduling of programs must be appropriate for the working, older respondent population.

Sources of continuing education vary within the area. The most popular source of continuing education which is self-directed journal reading may suggest that local practitioners could develop a regional publication in order to share new ideas and technologies. In terms of organized continuing education activities the rural hospitals and small city hospitals are dependent upon the consortium of joint educational training sponsored by the Southern Tier Hospital Management Association. Based upon the current level of participatory behavior and the overwhelming response that not enough opportunities exist, the implication can be made that area practitioners would participate in continuing education activities, if the activities were appropriate in content and perceived as being of value.

Professional Obsolescence

Some certifying and licensing bodies in recognition of the threat posed by professional obsolescence have already mandated continuing education for re-certification and/or relicensure(Snyder: 1982). Bruce,Vennes and Wavra (1981) cite that those in urban communities generally have greater access to continuing education than those in rural communities, partially due to the greater numbers of laboratory professionals in the urban community, but also due to greater access to educational facilities.

In a study by Swogger(1978), 65% of all respondents had attended at least one program in the last five years. Broski and Upp (1979)reported that 61% had attended a continuing education program during the previous calendar year in a study of the state of Ohio. The Swogger study found that only 15% of the study's respondents from rural hospitals had participated in at least one continuing education program in the last five years. The rate of participation in general and the rate of participation among rural hospital laboratory practitioners in the present study was higher than the general literature on continuing education in Medical Technology.

Motivation: Relationship to the General Literature

The reasons for personally participating, among persons who actually participated in this study demonstrates strong agreement that most individuals wanted to be better at their present job. Professionally, respondents,who participated,felt that practitioners should participate in continuing education because of the need for formal training in new methods. Among those who did not participate, apparently, the continuing education that was available did not offer opportunities that were perceived as personally satisfying. Personal satisfaction was the major reason given by non-participants for personally attending continuing education opportunities. Additionally, the available continuing education was not felt to make non-participants better at there present job nor related to job advancement. They agreed that professionals should obtain continuing education in order to keep current in new techniques and methods.

According to Houle (1980),every person develops a distinctive pattern of self-directed education influenced by both personal characteristics and by the special circumstances of the enviroment, including the stimuli provided by people and institutions who seek to advance

continued learning. Skinner(Hilgard and Bower:1981) cites situational variables as being significant in learning behavior. In the present Corning study, participatory rates of 77%-89% in three of the four categorized hospitals suggests strong institutional committment and actual support for continuing education. This is undoubtedly a significant factor along with peer participation as an positive influencing factor.

Among people in general (Houle:1980), the extent of formal education is more closely associated with extent of formal learning activity than with any other factor, but this characteristic may have relatively less weight in a profession because all those who belong to it tend to have had about the same extent of formal study. Where differences in length of formal training, do exist, they show a significantly positive association with the extent of continuing education. In this practicum, persons with advanced education at the graduate level did exhibit a higher rate of participation but the sample was too small to test for significance. Level of education may not have been the only factor for higher rates of participation by this group due to the fact that these practitioners are probably in a supervisory capapcity and may have been afforded greater opportunities by their employers for continuing education. Among the other groups studied with more than 38 respondents per category, no actual difference in the rate of participation was observed.

Among learners in Houle's (1980) report, the professionals were less interested in getting a new job and more interested in advancing on their present job/becoming better informed than the total group of respondents in the study. These findings were true for the Corning study group.

Houle's data suggests that the members of a profession may be differentiated into a five group typology whether the profession is considered as a whole or in some geographic areas such as a state or a city. Active practitioners can be divided into four general groups. The fifth group has withdrawn wholly or partially from active practice in order to fulfill various roles that advance and reinforce the profession; this group was designated as "facilitators." Houle described the groups in terms of their dominant attitudes toward their professional practice and then in terms of how those attitudes influence the nature and amount of educational participation they undertake. Innovators are noted for participating extensively in educational activities and to favor sophisticated learning pursuits. Pacesetters feel the need to be progressive in their practice and strongly support group learning endeavors . The middle majority make up the great body of those who practice the profession. The final group of active professionals are the laggards, who learn only what they must know if they are to stay in practice-their chief source of new information is salesman

of supplies, equipment and services. In this study, manufacturers played a small role in the continuing education of the laboratory practitioners. High rates of actual participation indicate that the majority of respondents could be classified as innovators, pacesetters or the middle majority. An examination of the types of continuing education activities that are exhibited by the various hospital categories suggests that attendance at national and state meetings probably earmarks a greater population of innovators and pacesetters in the medical center environment and a greater population of the middle majority at the other hospitals.

According to Boshier (1977),motivational orientation can be divided into life-chance(deficiency) or life-space(growth) motives. Life-chance motivation was hypothesized as being a principal determinant of the participation behavior of people from the lower socio-economic groups,while life-space motivation was said to characterize the upper socio-economic groups. Persons seeking to satisfy the lower-order needs are, in the long term, seeking to expand social and vocational horizons-aspects of their life-space but in the short-term are primarily trying to improve their life-chances (which are usually psychological or vocations). One of the factors,Factor II- Professional Advancement, concerns participants enrolled in order to acquire knowledge, attitudes or skills that will help them with their job.

This factor is tentatively labeled as indicating one aspect of life-chance motivation. This factor was characterized by descriptors such as: to secure professional advancement, to increase my competence in my job, higher status in my job. Negative association with years of education and enrolling for professional advancement were noted by Boshier. This characteristic was not true in this practicum as all participants chose wanting to be better at their present job as a predominant factor.

Curricular Recommendations

Two very distinctive curricular recommendations emerge as significant action items based upon the level of educational attainment achieved by Medical Technology practitioners in Corning Community's service area. The high percentage of individuals with,at least,an associate degree would undoubtedly preclude reinstatement of the non-traditional Medical Laboratory Technology associate degree for working practitioners. Reinstatement of the program might benefit a few individuals but would probably not attract enough individuals to satisfy the minimum of twelve persons per class in order to be minimally cost effective. The second curricular recommendation would be that the college investigate methods that would assist area practitioners in terms of career mobility. The high percentage of persons with only the associate degree suggests that an upper-division Baccalaureate degree articulation could benefit present Corning students as well as employed graduates in the service area. From a motivational point of view, this activity would offer practitioners an opportunity that could lead to job advancement as well as offering personal satisfaction.

Professional Continuing Education Recommendations

Several areas of professional development offer the college an opportunity to become actively involved in

providing continuing education to practitioners of the clinical laboratories of the service area. The unusually high number of individuals with either an associate or bachelor's degree but lacking certification by a national agency would suggest that the college should investigate the reasons for non-licensure and conduct a brief survey of the level of interest among practitioners in gaining national certification. If a positive interest is expressed, the college should consider sponsoring local review classes as a community service offering. These review sessions could be designed to be appropriate for both the Medical Laboratory Technician category, the 2 year degree level, and the Medical Technologist category, the 4 year degree level. Review and remediation for these examinations could either utilize a small group format or be presented as independent study modules.

Professional Growth and Development Recommendations

The reliance upon written material by the practitioners presents an opportunity for promoting the growth and development of college faculty as well as meeting the needs of clinical practitioners of the service area. College faculty, as a community service activity, could collect and disseminate innovative ideas and news to the service area through a periodic newsletter. In addition to the benefits to faculty and practitioners, this

activity would serve as a positive public relations tool for the college.

The findings of this practicum suggest that the college may extend its involvement into the professional community of Medical Technology by providing or coordinating specialized, technical workshops. Because the college maintains a clinical affiliation with the teaching medical center in this study, it is in a strategic position to coordinate the knowledge gained by local practitioners who actively attend national and state meetings, faculty expertise and guest experts. It is important to recognize that the specific needs for specialized technical workshops should be surveyed prior to development in order to offer programs that will satisfy the motivational characteristics of survey respondents. These characteristics were that a continuing education activity present new methods, be personally satisfying, be applicable to their present job or offer the potential for job advancement.

Conclusions

The purpose of this practicum was to examine the continuing education participatory behaviors and related characteristics of Medical Technology practitioners. The results of the practicum have defined these characteristics among respondents who are clinical laboratory practitioners within the college's service area.

The problem that the college has not been actively involved in directly providing credit and non-credit professional continuing education because demographic characteristics, opinions, participatory behaviors and related opportunities were not known has been addressed. The results of the practicum have yielded information that will provide college planners and related agencies with information and recommendations based upon this information that will facilitate planning, marketing and implementing appropriate continuing education programs for the service area in the discipline of Medical Technology.

Local documentation now exists that should provide a better understanding of laboratory practitioners in our service area. This actual and comparative information should enhance planning at Corning Community College and contribute to the general literature in Medical Technology and adult, continuing higher education.

REFERENCES

Boshier, Roger. "Motivational Orientations Re-Visited: Life Space Motives and the Education Participation Scale." Adult Education Journal, 27, No. 2 (1977), 89-116.

Bower, Gordon and Ernest R. Hilgard. Theories of Learning. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 5th edition, 1981, 197-198,537.

Broski, David C. and Sylvia C. Upp. "What Allied Health Professionals Want From Continuing Education Programs: A Study of Five Disciplines." Journal of Allied Health, Feb. 1979, 24-28.

Bruce, A. Wayne and Vennes, John W. and Mary L. Wavra. A Continuing Education Program for Rural Communities: Evaluating Cognitive and Behavioral Change." American Journal of Medical Technology, Vol.47, No.4, April, 1981, 247-251.

Connelly, Thomas,Jr. "Continuing Education In Allied Health: The State of the Art." Journal of Allied Health, Vol.8:1, 1979, 38-46.

Cross, K. Patricia. Adults As Learners. San Francisco: Jossey-Bass, 1981.

Dickinson, Gary and Kathleen M. Clark. "Learning Orientations and Participation in Self-Education and Continuing Education." Adult Education, Vol. 27, No. 1, Fall, 1975, 3-15.

Hoffman, Allen Michael. "Avoiding Professional Obsolescence: The Mandatory Continuing Education Debate." American Journal of Medical Technology, Vol. 40, No. 4, 1980, 266-269.

REFERENCES (cont.)

Hoffman, Allen Michael. "Continuing Education: A Perspective of Planning." Journal of Allied Health, February, 1979, 29-33.

Houle, Cyril O. Continuing Education in the Professions. San Francisco: Jossey-Bass, 1980.

. "Lengthened Line." Perspectives in Biological Medicine. Vol. 11, Autumn, 1967, 37-51.

. The Inquiry Mind. Madison: University of Wisconsin Press, 1961.

Ruhe, C.H., M.D. "What is the Status of Continuing Education For Health Professions?" Mobius Vol. 2, No. 2, April, 1982, 8-14.

Snyder, John R. and Roxanne P. Thompson and Peggy P. Luebbert. "Continuing Education for Medical Laboratory Personnel: The Telephone Conference Approach." American Journal of Medical Technology, Vol.48, No. 8, August, 1982, 691-696.

Swogger,K.A. and B.F. Love and J.M. Krall. "Continuing Education for Laboratory Personnel." American Journal of Medical Technology, Vol.44, No.10, October, 1978, 883-887.

Tinto, Vincent. "Limits of Theory and Practice in Student Attrition." Journal of Higher Education, 53, No.6 (1982), 687-700.

Turgeon, Mary L. "A Non-Traditional Approach to Medical Laboratory Technology Education." The American Journal of Medical Technology, 44, No.11, November, 1978, 1085-1090.

BIBLIOGRAPHY

Boshier, Roger. "Motivational Orientations of Adult Education Participants: A factor Analytic Exploration of Houle's Typology." Adult Education Journal, Vol.21 No. 2, Winter, 1971, 3-26.

Laxdal, O.E. "Needs Assessment in Continuing Medical Education: A Practical Guide," Journal of Medical Education, Vol. 57, November, 1982, 827-834.

Lindsay, Carl A. and James L. Morrison and E. James Kelley. "Professional Obsolescence: Implications For Continuing Professional Education."Adult Education Journal, Vol. 25, No. 1, Fall, 1974, 3-22.

London, Jack. "The Influence of Social Class Behavior Upon Adult Education Participation," Adult Education Journal, Vol. 20, No. 3, Spring, 1970, 140-153.

. "Attitudes Toward Adult Education by Social Class." Adult Education, Vol. 13, Summer, 1963 226-233.

Morstain, Barry R. and John C. Smart. "Reasons For Participation in Adult Education Courses: A Multi Variate Analysis of Group Differences," Adult Education, Vol.24, No.2, Winter, 1974, 83-98.

Appendix A

corning community college

Corning, New York 14830
(607) 962-9011

September 1, 1983

Dear :

I would like to invite you and your laboratory staff to participate in an applied research project that I will be conducting as part of my Nova University degree requirements.

This short study will focus on the participatory characteristic of medical laboratory hospital personnel within and outside of the college's service area. A short questionnaire will be used for this study and it is attached for your perusal. All personnel in the laboratory with the exception of clerical personnel are invited to participate. It is expected that the study will allow the college and related area agencies to address the continuing education needs of clinical laboratory personnel, if a need is documented by this survey.

All responses will be treated confidentially with the results be reported as grouped data. If you wish, data for your own laboratory can be separated and reported to you on an individual basis.

If you wish to have your laboratory participate, please contact me at 607-962-9242 or 607-962-9367 as soon as possible. I am anxious to begin this survey as soon as I have heard from all of the laboratories that have been invited to participate. Thank you for your interest in this project. As you know, very little data is available for the profession of Medical Technology in general and for our service area in particular.

Sincerely,

Mary L. Turgeon, M.S.,MT(ASCP)
Professor of Medical Technology

Appendix B

corning community college

Corning, New York 14830
(607) 962-9211

September 1, 1983

Dear Colleague:

I am conducting a study of Professional Continuing Education Attitudes and Activities of Allied Health Practitioners as part of my Doctoral degree requirements.

The attached survey is designed to sample some of your opinions and activities as clinical laboratory practitioners. Information gained from this study will be of value to the profession in general and to various organizations in our local area.

I would appreciate having you respond to this survey and returning it to your laboratory supervisor at your earliest convenience. A copy of the final survey results will be sent to your supervisor to share with you.

Thank you for your time and interest.

Sincerely,

Mary L. Turgeon, M.S., MT(ASCP)
Professor of Medical Laboratory Technology
Biology-Chemistry Division

Appendix C

MEDICAL TECHNOLOGY CONTINUING EDUCATION SURVEY
If you perform any type of laboratory procedures, including PHLEBOTOMISTS, your in-put would be appreciated.

Please circle or check off the applicable information:

1. Age Group:
   21 yrs. of under, 21-25 yrs., 26-30 yrs., 31-40 yrs., over 40 yrs.

2. Highest level of education or degree:

   High School 2yr./Associate Bachelor's
   Master's Doctorate Other:

3. Professional Certification? i.e. MLT(ASCP)

4. Have you participated in any professional, continuing education activities in the last 3 yrs? YES NO

5. Select the THREE most important reasons for personally participating in continuing education. Number 1 should be your first choice, the MOST important.

   --possible job advancement and/or salary increase
   --want to be better at my present job
   --a sense of personal satisfaction in mastering something new
   --more interesting than working
   --certificate of achievement or re-licensing desired
   --enjoy meeting new people
   --my boss or friends wanted me to participate

6. Select the THREE most important reasons that you feel professionals SHOULD participate in continuing education. Number 1 should be the MOST IMPORTANT.

   --mastery of theoretical knowledge
   --improvement of problem solving ability
   --use of practical knowledge
   --overall personal growth
   --formal training in new techniques and methods
   --legal documentation of continuing competency
   --ethically necessary to remain competent
   --promotion of professional image
   --exchange of ideas among professionals

7. Circle your TWO most frequent sources of continuing educ. JOURNAL READING---LOCAL AREA WORKSHOPS IN-HOUSE PROGRAMS---STATE MEETINGS---NATIONAL MEETINGS MANUFACTURERS(sales, hot line, etc.)--CO-WORKERS

8. Circle your response:
   My opportunities for continuing education are:
   TOO FEW------JUST RIGHT------TOO MANY

Appendix D

First Choice Responses as a Function of Age

Item 5 Reasons for Personally Participating

HOSPITAL	Years of Age: up to 25	26-30	31-40	over 40
A	B(50%)	B(50%)	B(75%)	B(50%) A(50%)
B	B(63%)	B(44%)	B(52%)	B(83%)
C	C(63%)	A(33%) C(33%)	B(50%)	B(50%)
D	A(50%) C(50%)	B(50%)	C(50%)	B(100%)

Item 6 Reasons for Professionally Participating

HOSPITAL	up to 25	26-30	31-40	over 40
A	E(83%)	G(50%)	A(33%)	E(33%)
B	E(50%)	E(33%)	E(24%)	G(25%)
C	D(38%) E(38%)	E(44%)	E(30%)	D(50%)
D	E(75%)	E(42%)	E(50%)	I(43%)

APPENDIX E

First Choice Opinions Toward Continuing Education as Expressed by Participants versus Non-Participators.

Item 5 Personal Choices

	PARTICIPANTS	NON-PARTICIPANTS
A	B(61%) A(25%) C(7%) N/A (7%)	B(67%) G(33%)
B	B(70%) C(21%) A(9%)	C(50%) C(29%) A(21%)
C	B(70%) A(19%) C(11%)	C(71%) A(14%) B(14%)
D	B(72%) A(14%) C(14%)	A(72%) B(14%) C(14%)

Item 6 Professional Choices

A	E(49%) A(18%) G(18%) I(14%)	E(67%) N/A (33%)
B	E(51%) B(28%) G(21%)	E(65%) F(21%) A(14%)
C	E(63%) D(15%) A(11%) B(11%)	B(29%) D(29%) E(29%) A(14%)
D	E(63%) I(23%) G(14%)	E(58%) D(28%) G(14%)

ERIC Clearinghouse for Junior Colleges
8118 Math-Sciences Building
University of California
Los Angeles, California 90024

APR 6 1984